PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	Patent Number	7,119,184		TOP HEATING					
TRANSMITTAL	Issue Date	10/10/200							
FORM	First Named Inventor	<del>-</del>	Muthiah Manoharan						
	Title	OLIGONI	UCLEOTDIES HAVING A-DNA FORM AND E ONFORMATIONAL GEOMETRY	B-DNA					
(to be used for all correspondence after initial	Attorney Docket Number	ISIS-4789	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Total Number of Pages in This Submission	7. Morriey Booket Number	1313-4768							
ENCLOSURES (Check all that apply)									
Fee Transmittal Form	Drawing(s)		After Allowance Communication to Bo						
Fee Attached	Licensing-related Papers		Appeal Communication to Board of Appeals and Interferences						
Amendment/Reply  After Final  Affidavits/declaration(s)  Extension of Time Request  Express Abandonment Request  Information Disclosure Statement  Certified Copy of Priority Document(s)  Reply to Missing Parts/ Incomplete Application  Reply to Missing Parts under 37 CFR 1.52 or 1.53	Petition Petition to Convert to a Provisional Application Power of Attorney, Revocati Change of Correspondence Terminal Disclaimer Request for Refund CD, Number of CD(s) Landscape Table on C Remarks	Address	Appeal Communication to TC (Appeal Notice, Brief, Reply Brief Proprietary Information  Status Letter Other Enclosure(s) (please Idea below): Certificate of Correction						
	TURE OF APPLICANT, ATTO	RNEY, C	OR AGENT						
Firm Name Isis Pharmaceuticals, Inc.									
Signature Robert S.	andrews								
Printed name Robert S. Andrews									
Date 10/12/2006		Reg. No.	44,508						
CERTIFICATE OF TRANSMISSION/MAILING  I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:									
Signature		· · · · · · · · · · · · · · · · · · ·							
Typed or printed name			Date						

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 04/30/2007. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. (Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

APPLICATION NO.: 09/970,971  ISSUE DATE : 10/10/2006  INVENTOR(S) : Muthiah Manoharan et al.  It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:  1) Title Page: Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";		7.440.404	Page _	_1_	_ of	1_
INVENTOR(S) : Muthiah Manoharan et al.  It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:  1) Title Page: Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";						
Inventor(s) : Muthiah Manoharan et al.  It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:  1) Title Page: Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";	APPLICATION NO.:	09/970,971				
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:  1) Title Page: Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";	ISSUE DATE :	10/10/2006				
is hereby corrected as shown below:  1) Title Page: Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";	INVENTOR(S) :	Muthiah Manoharan et al.				
Item [60], Related U.S. Application Data, please insertwhich is a 371 of PCT/US91/05720, filed on Aug. 12, 1991 after "5,670,633";	It is certified is hereby correcte	that an error appears or errors appear in the above-identified patent and ted as shown below:	hat said	Lette	rs Pa	itent
2) Column 91, Claim 4, line 20, please delete "that can include" and insert thereforeoptionally containing	Item [60], Relate	ed U.S. Application Data, please insertwhich is a 371 of PCT/US91/0572070,633";	), filed o	n Au	g. 12,	ı
	2) Column 91, C	laim 4, line 20, please delete "that can include" and insert thereforeoptio	nally co	ntaini	ng	
		<del></del>				

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Isis Pharmaceuticals, Inc. 1896 Rutherford Rd. Carlsbad, CA 92008

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.